TABLE M.5.3.8.4–1.—*Annual Routine Radioactive Airborne Emissions under the Proposed Action (Fission Products)*

Nuclide	Annual Amount Available for Release (Ci/1,200 MJ)[b]	Annual Air Effluents Via Charcoal Filter[a] (Ci/1,200 MJ)
Krypton-83m	1.1×10^{-13}	1.1×10^{-13}
Krypton-85	3.5×10^{-4}	3.5×10^{-4}
Krypton-85m	2.9×10^{-7}	2.9×10^{-7}
Krypton-87	0	0
Krypton-88	2.3×10^{-11}	2.3×10^{-11}
Krypton-89	0	0
Iodine-131	1.9	9.3×10^{-1}
Iodine-132	3.9	1.9×10^{-1}
Iodine-132m	0	0
Iodine-133	1.1	5.6×10^{-2}
Iodine-133m	0	0
Iodine-134	0	0
Iodine-134m	0	0
Iodine-135	6.1×10^{-4}	2.8×10^{-5}
Iodine-136	0	0
Xenon-131	6.1×10^{-3}	6.1×10^{-3}
Xenon-133	5.9	5.9
Xenon-133m	2.1×10^{-1}	2.1×10^{-1}
Xenon-134m	0	0
Xenon-135	4.5×10^{-2}	4.5×10^{-2}
Xenon-135m	9.0×10^{-5}	9.0×10^{-5}
Xenon-137	0	0
Total	1.3×10^{1}	7.3

Source: LLNL 2003d.
[a] The effluents from the cryopumps during regeneration and from the target chamber when bringing to air would be passed through 2-inch-thick charcoal filters to remove iodines, with 99 percent being collected by charcoal bed. Here, only 95 percent is assumed removed for conservatism.
[b] 1.2 gram uranium-235/target: 2×10^{16} Fissions per 20 MJ experiment, 60 experiments per year.
Ci = curies; MJ=megajoules.

TABLE M.5.3.8.4–2.—*Radiological Impacts to the General Public from Airborne Effluent Emissions during Normal Operations (Proposed Action)*

Receptor	Proposed Action		No Action Alternative	
	Dose	Latent Cancer Fatality Risk	Dose	Latent Cancer Fatality Risk
NIF Offsite MEI	0.07 mrem/yr	4.2×10^{-8} /yr of exposure	0.04 mrem/yr	2.4×10^{-8} /yr of exposure
Population Dose	0.29 person-rem/yr	1.7×10^{-4}	0.26 person-rem/yr	1.6×10^{-4}

Source: LLNL 2003d.
MEI = maximally exposed individual; mrem = millirems; yr = year; NIF = National Ignition Facility.